



**Resolute Forest Products – Catawba Mill**  
5300 Cureton Ferry Road  
Post Office Box 7  
Catawba, SC 29704-0007

FED EX NO. 7712 3431 8495

January 22, 2018

Technical Management Section  
South Carolina Department of Health and Environmental Control  
Bureau of Air Quality  
2600 Bull Street  
Columbia, SC 29201-1708

Re: 2017 Fourth Quarter CEM Report Summaries  
Air Permit Number TV-2440-0005

Dear Sir or Madam:

Enclosed are the 2017 Fourth Quarter Continuous Emission Monitor Report Summaries and Title V monitoring report for Resolute Forest Products – Catawba Mill, Air Permit Number TV-2440-0005. Logs detailing each specific incident are also enclosed.

Based on information and belief formed after reasonable inquiry, I certify to the best of my knowledge, that the statements and information in this submission are true, accurate, and complete.

If there are any questions, please feel free to contact Mike Swanson at [mike.swanson@resolutefp.com](mailto:mike.swanson@resolutefp.com) or (803) 981-8010.

Sincerely,

Wayne Griffin  
General Manager – Catawba Operations

Attachments: CEMS Logs

cc: Alex Latta, Region 3 Lancaster EQC Office  
EPA Region 4  
Environmental File 208.19

## 2017 Fourth Quarter CEM Report Summaries

### Title V Permit Unit ID 01 – Woodyard

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
01.1	1300	N/A	N/A	Refers to FW.4
01.2	1300	N/A	N/A	Refers to FW.4
01.3	1300	No	N/A	Refers to FW.4
01.4	1300	N/A	N/A	Refers to FW.1

### Title V Permit ID 02 – Kraft Process – Kraft Pulp Mill

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
02.1	5210, 5220, 5230, 5240, and 5250	No	N/A	N/A
02.2(A)	5210 & 5230	Yes	Semi-annual	See below.
02.2(B)	5210 & 5230	N/A	N/A	Refers to 08.7.
02.3	5210, 5220, 5230, 5240, and 5250	N/A	N/A	Refers to MACT conditions.
02.4	5210, 5220, 5230, 5240, and 5250	N/A	N/A	Refers to FW.1.

**Condition 02.2(A)**  
**Equip IDs 5210 and 5230**

**Reporting Frequency: Semi-Annually**

There were no parameters outside the ranges listed in Attachment H for the scrubber (Control Device ID 5260C) during the semi-annual period.

## 2017 Fourth Quarter CEM Report Summaries

### Title V Permit ID 03 – Kraft Process: Kraft Bleach Plant

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
03.1	5300	Yes	Semi-annual	See note below.
03.2	5300	N/A	N/A	Refers to MACT conditions.
03.3	5300	N/A	N/A	Refers to FW.1

#### Condition 03.1 Equip ID 5300

**Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting form 3650, the following information is being included with this report pursuant to DHEC form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.03.1.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is continuous monitoring of specific scrubber parameters.
- Cause(s) and corrective action(s) are detailed on the enclosed logs.

There was only one incident during which a parameter was outside the maximum rate during the reporting period. See the enclosed log for details.

### Title V Permit ID 04 – Kraft Process: Chlorine Dioxide Generator

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
04.1	1790	Yes	Semi-annual	See note below.
04.2	1790	No	N/A	N/A

#### Condition 04.1 Equip ID 1790

**Reporting Frequency: Semi-Annually**

There was no incident in which a surrogate monitoring parameter was outside the range for the chlorine dioxide scrubber (Control Device ID 1790C) during the semi-annual reporting period. See the enclosed log for details.

### Title V Permit ID 05 – TMP Process

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
05.1	4400	No	N/A	N/A
05.2	4400	No	N/A	N/A

## 2017 Fourth Quarter CEM Report Summaries

### Title V Permit ID 06 – Paper Mill

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
06.1(A)	2000, 2005, 4100, 4110, 4600, 4605, 9700, 9701A, 9701B, 9702, 9703, & 9704	N/A	N/A	Refers to FW.4.
06.1(B)	2000, 2005, 4100, 4110, 4600, 4605, 9700, 9701A, 9701B, 9702, 9703, & 9704	Yes	Semi-annual	See note below.
06.2(A)	2010, 4610, 4120, 4130, & 9900	No	N/A	N/A
06.2(B)	4120 & 4130	Yes	Semi-annual	See note below.
06.3(A)	2010	No	N/A	N/A
06.3(B)	4120 & 4130	Yes	Semi-annual	See note below.
06.3(C)	4610	Yes	Semi-annual	See note below.
06.3(D)	9900	Yes	Semi-annual	See note below.
06.4	4110	Yes	Semi-annual	See note below.
06.5(A)	2010	No	N/A	N/A
06.5(B)	4120 & 4130	Yes	Semi-annual	See note below.
06.5(C)	4610	Yes	Semi-annual	See note below.
06.5(D)	9900	Yes	Semi-annual	See note below.
06.6(A)	4610	Yes	Semi-annual	See note below.
06.6(B)	9900	Yes	Semi-annual	See note below.
06.7	4110	No	N/A	N/A
06.8	2010	No	N/A	N/A
06.9	2000, 2010, 2100, 4600, 4610, 4100, 4110, 4120, & 4130	N/A	N/A	Refers to FW.1
06.10	2005, 2010, 4605, & 4610	N/A	N/A	Refers to MACT conditions

#### Condition 06.1(B)

**Equip IDs 2000, 2005, 4100, 4110, 4600, 4605, 9700, 9701A, 9701B, 9702, 9703, & 9704**

**Reporting Frequency: Semi-Annually**

During the reporting period, no abnormal dust emissions were noted on daily inspection reports during the semi-annual period.

## 2017 Fourth Quarter CEM Report Summaries

### Condition 06.2(B) Equip IDs 4120 & 4130

Reporting Frequency: Semi-Annually

Kerosene was not utilized in the Hot Oil Heating System (4130); therefore, no visual inspections were performed during the reporting period. The Infrared Dryer (4120) was removed from service at the end of May 2013.

### Condition 06.3(B) Equip IDs 4120 & 4130

Reporting Frequency: Semi-Annually

The Infrared Dryer (4120) was removed from service at the end of May 2013. Monthly fuel usages of natural gas, kerosene, and propane for the Hot Oil Heating System (4130):

#### No. 3 Paper Machine Hot Oil Heater Fuel Usage (ID 4130)

Month	Natural Gas (MMBtu)	Propane (gallons)	Kerosene (gallons)
June-16	2,752	0	0
July-16	2,849	0	0
August-16	3,096	0	0
September-16	3,446	0	0
October-16	4,406	0	0
November-16	4,122	0	0
December-16	4,330	0	0
January-17	4,022	0	0
February-17	4,227	0	0
March-17	3,926	0	0
April-17	3,387	0	0
May-17	3,343	0	0
June-17	2,653	0	0
July-17	4,309	0	0
August-17	4,204	0	0
September-17	3,987	0	0
October-17	4,452	0	0
November-17	4,250	0	0
December-17	4,088	0	0

## 2017 Fourth Quarter CEM Report Summaries

### Condition 06.3(C) Equip ID 4610

**Reporting Frequency: Semi-Annually**

Monthly fuel usages of kerosene and propane for the No. 2 Coater Dryer (4610) (idled in June 2017) are shown below:

	Kerosene (gallons)	12-Month Sum	Propane (gallons)	12-Month Sum
June-16	0	0	0	0
July-16	0	0	0	0
August-16	0	0	0	0
September-16	0	0	0	0
October-16	0	0	0	0
November-16	0	0	0	0
December-16	0	0	0	0
January-17	0	0	0	0
February-17	0	0	0	0
March-17	0	0	0	0
April-17	0	0	0	0
May-17	0	0	0	0
June-17	0	0	0	0
July-17	0	0	0	0
August-17	0	0	0	0
September-17	0	0	0	0
October-17	0	0	0	0
November-17	0	0	0	0
December-17	0	0	0	0

### Condition 06.3(D) Equip ID 9900

**Reporting Frequency: Semi-Annually**

Monthly fuel usages of natural gas and propane for the Paper Machine Make-Up Air Units (4610) are shown below:

	Natural Gas (scf)	12-Month Rolling Sum	Propane (gallons)	12-Month Rolling Sum
June-16	222	36,809,572	0	0
July-16	1,213	36,810,777	0	0
August-16	43	36,810,568	0	0
September-16	0	36,810,430	0	0
October-16	3,609,657	37,410,423	0	0
November-16	4,607,148	36,981,319	0	0
December-16	9,418,206	41,391,266	0	0
January-17	5,667,088	36,816,695	0	0
February-17	3,658,726	32,147,972	0	0
March-17	4,431,293	33,013,166	0	0
April-17	3,298,082	34,691,736	0	0
May-17	4,110,881	38,802,561	0	0
June-17	1,482,123	40,284,461	0	0
July-17	1	40,283,250	0	0
August-17	120	40,283,327	0	0
September-17	106	40,283,433	0	0
October-17	72	36,673,848	0	0
November-17	12,459,724	44,526,424	0	0
December-17	13,945,998	49,054,216	0	0

## 2017 Fourth Quarter CEM Report Summaries

### Condition 06.4 Equip ID 4110

Reporting Frequency: Semi-Annually

Monthly fuel usages of natural gas, kerosene, and propane for the Air Flootation Dryer (4110) are shown below:

Month	Natural Gas MMBtu	Propane (gallons)	Kerosene (gallons)	PM / MMBtu
June-16	4,851	0	0	0.0076
July-16	5,022	0	0	0.0076
August-16	5,456	0	0	0.0076
September-16	6,074	0	0	0.0076
October-16	7,765	0	0	0.0076
November-16	7,265	0	0	0.0076
December-16	7,632	0	0	0.0076
January-17	7,088	0	0	0.0076
February-17	7,449	0	0	0.0076
March-17	6,920	0	0	0.0076
April-17	5,970	0	0	0.0076
May-17	5,891	0	0	0.0076
June-17	4,677	0	0	0.0076
July-17	7,594	0	0	0.0076
August-17	7,410	0	0	0.0076
September-17	7,028	0	0	0.0076
October-17	7,846	0	0	0.0076
November-17	7,490	0	0	0.0076
December-17	7,205	0	0	0.0076

The Air Flootation Dryer demonstrated compliance with the BACT limit of 0.0164 lb PM per million BTU.

### Condition 06.5(B) Equip IDs 4120 & 4130

Reporting Frequency: Semi-Annually

Monthly fuel usages of natural gas, kerosene, and propane for the Hot Oil Heating System (4130) are shown for condition 5C.06.3(B) above. The Infrared Dryer (4120) was removed from service at the end of May 2013.

### Condition 06.5(C) Equip ID 4610

Reporting Frequency: Semi-Annually

Monthly fuel usages of natural gas, kerosene, and propane for the No. 2 Coater Dryer (4610) are shown for condition 5C.06.3(C) above.

## 2017 Fourth Quarter CEM Report Summaries

### Condition 06.5(D) Equip ID 9900

**Reporting Frequency: Semi-Annually**

Monthly fuel usages of natural gas and propane for the Paper Machine Make Up Air Units (4610) are shown for condition 5C.06.3(D) above.

### Condition 06.6(A) Equip ID 4610

**Reporting Frequency: Semi-Annually**

Monthly fuel usages of natural gas, kerosene, and propane for the No. 2 Coater Dryer (4610) are shown for condition 5C.06.3(C) above.

### Condition 06.6(B) Equip ID 9900

**Reporting Frequency: Semi-Annually**

Monthly fuel usages of natural gas and propane for the Paper Machine Make Up Air Units (4610) are shown for condition 5C.06.3(D) above.

## Title V Permit ID 07 – Chemical Recovery

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
07.1(A)	2400, 2402, 2500, 5100	No	N/A	N/A
07.1(B)	2515, 2520, 5115, 5120, 2700, 2701, 2702, & 2703	N/A	N/A	Refers to FW.4
07.1(C)	2700 & 2701 (2725C)	No	N/A	N/A
07.2(A)	2505 & 2723	Yes	Semi-annual	See note below.
07.2(B)	2510 & 5110 (2511C)	Yes	Semi-annual	See note below.
07.3	5105	Yes	Semi-annual	See note below.
07.4(A)	2505	N/A	N/A	Refers to MACT conditions
07.4(B1)	2505	N/A	N/A	Refers to MACT conditions
07.4(B2)	2505	No	N/A	N/A
07.5(A)	2510	N/A	N/A	Refers to MACT conditions
07.5(B1)	2510	N/A	N/A	Refers to MACT conditions
07.5(B2)	2510	No	N/A	N/A
07.6(A)	5105	N/A	N/A	Refers to MACT conditions
07.6(B1)	5105	N/A	N/A	Refers to MACT conditions
07.6(B2)	5105	No	N/A	N/A
07.6(C)	5105	N/A	N/A	Refers to FW.3.
07.7(A)	5110	N/A	N/A	Refers to MACT conditions.
07.7(B)	5110	N/A	N/A	Refers to MACT conditions.
07.8(A)	2723	N/A	N/A	Refers to MACT conditions.
07.8(B)	2723	N/A	N/A	Refers to MACT



## 2017 Fourth Quarter CEM Report Summaries

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
				conditions.
07.8(C1)	2723	N/A	N/A	Refers to MACT conditions.
07.9(A)	2725C	No	N/A	N/A
07.9(B)	2726C & 2724C	No	N/A	N/A
07.9(C)	2724C, 2725C & 2726C	Yes	Semi-annual	See note below.
07.10(A)	5105 & 2723	No	N/A	N/A
07.10(B)	2723	No	N/A	N/A
07.10(C)	5105	No	N/A	N/A
07.10(D1)	2723	N/A	N/A	Refers to FW.2.
07.10(D2)	2723	N/A	N/A	Refers to FW.3.
07.10(D3)	5105	N/A	N/A	Refers to FW.3.
07.11(A)	5105 & 2723	No	N/A	N/A
07.11(B1)	2723	No	N/A	N/A
07.11(B2)	5105	No	N/A	N/A
07.11(C1)	2723	N/A	N/A	Refers to FW.2.
07.11(C2)	2723	N/A	N/A	Refers to FW.3.
07.11(C3)	5105	N/A	N/A	Refers to FW.3.
07.12(A)	5105 & 2723	No	N/A	N/A
07.12(B)	5105 & 2723	Yes	Semi-annual	See note below.
07.12(C1)	2723	N/A	N/A	Refers to FW.2.
07.12(C2)	2723	N/A	N/A	Refers to FW.3.
07.12(C3)	5105	N/A	N/A	Refers to FW.3.
07.13(A)	5260 (5260C)	N/A	N/A	Refers to 02.2.
07.13(B)	2400, 2500, 5100, & 5260	N/A	N/A	Refers to 08.7.
07.14	2505	Yes	Semi-annual	See note below.
07.15	5105	Yes	Semi-annual	See note below.
07.16(A)	2510	Yes	Semi-annual	See note below.
07.16(B)	5110	Yes	Semi-annual	See note below.
07.17(A)	2723	Yes	Semi-annual	See note below.
07.17(B1)	2723	N/A	N/A	Refers to FW.2.
07.17(B2)	2723	N/A	N/A	Refers to FW.3.
07.18(A1)	2723	N/A	N/A	See note below.
07.18(A2)	2723	N/A	N/A	Refers to FW.3.
07.19	2400, 2700, 2701, 2702, 2723, 5105, 5110, & 5115	N/A	N/A	Refers to FW.1.
07.20 & 0.7.21	2400, 2500, & 5100	N/A	N/A	Refer to MACT conditions.
07.22	2505, 2110, 2723, 5105, & 5110	N/A	N/A	Refer to MACT conditions.

### Condition 07.2(A) Equip IDs 2505 & 2723

**Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5C.07.2.

## 2017 Fourth Quarter CEM Report Summaries

- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous opacity data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

There were no three-hour opacity episodes for the No. 2 Lime Kiln (ID 2723) during the semi-annual reporting period.

There were no three-hour opacity episodes for the No. 2 Recovery Furnace (ID 2505) during the semi-annual reporting period.

A summary is listed below for the continuous opacity monitoring downtime and excess emissions for the reporting period.

### Continuous Opacity Monitoring – No. 2 Recovery Furnace

	3rd Quarter	4th Quarter	Semi-Annual Period
Monitor Downtime	0.20 %	1.86 %	1.05 %
Excess Emission	0.11 %	0.15 %	0.13 %
Overall Compliance	99.69 %	97.99 %	98.82 %

### Continuous Opacity Monitoring – No. 2 Lime Kiln

	3rd Quarter	4th Quarter	Semi-Annual Period
Monitor Downtime	1.47 %	1.38 %	1.43 %
Excess Emission	0.12 %	0.08 %	0.10 %
Overall Compliance	98.40 %	98.54 %	98.473 %

#### Condition 07.2(B) Control Device ID 2511C

**Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5C.07.2.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous opacity data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

During the reporting period, there was no instance of deviation from the scrubber monitoring ranges. See the enclosed log for details.

#### Condition 07.3 Equip ID 5105

**Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.07.3.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous opacity data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

## 2017 Fourth Quarter CEM Report Summaries

There were no three-hour opacity episodes during the semi-annual reporting period.

A summary is listed below for the continuous opacity monitoring downtime and excess emissions for the reporting period.

### Continuous Opacity Monitoring – No. 3 Recovery Furnace

	3rd Quarter	4th Quarter	Semi-Annual Period
<b>Monitor Downtime</b>	0.15 %	0.00 %	0.07 %
<b>Excess Emission</b>	0.00 %	0.10 %	0.05 %
<b>Overall Compliance</b>	99.85 %	99.90%	99.88 %

#### Condition 07.9(C)

**Control Device IDs 2724C, 2725C, & 2726C**

**Reporting Frequency: Semi-Annually**

For the Slaker Scrubber (ID 2725C), there were no variations of a surrogate monitoring parameter during the semi-annual period.

No abnormal dust emissions were noted on the daily logs for the lime silos baghouses (IDs 2724C and 2726C) during the semi-annual reporting period.

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### Condition 07.12(B) Equip IDs 2723 & 5105

**Reporting Frequency: Semi-Annually**

The lime kiln modifications authorized by Construction Permit 2440-0005-DA have not occurred; therefore the requirements of this condition applicable to the No. 2 Lime Kiln (ID 2723) are not yet applicable.

The required data is recorded for the No. 3 Recovery Furnace (ID 5105). A summary is listed below for the continuous emissions monitoring downtime and excess emissions for the reporting period. See the enclosed log for details.

#### Continuous NOx Emissions Monitoring – No. 3 Recovery Furnace

	3rd Quarter	4th Quarter	Semi-Annual Period
<b>Monitor Downtime</b>	0.75 %	0.57 %	0.66 %
<b>Excess Emission</b>	0.00 %	0.00 %	0.00 %
<b>Overall Compliance</b>	99.25 %	99.43 %	99.32 %

### Condition 07.14 Equip ID 2505

**Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.07.14.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous TRS data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

A summary is listed below for the continuous emissions monitoring downtime and excess emissions for the reporting period. See the enclosed log for details.

#### Continuous Emissions Monitoring – No. 2 Recovery Furnace

	3rd Quarter	4th Quarter	Semi-Annual Period
<b>Monitor Downtime</b>	1.45 %	4.88 %	3.22 %
<b>Excess Emission</b>	0.00 %	0.00 %	0.00 %
<b>Overall Compliance</b>	98.55 %	95.12 %	96.78 %

## 2017 Fourth Quarter CEM Report Summaries

### Condition 07.15 Equip ID 5105

**Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.07.15.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous TRS data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

A summary is listed below for the continuous emissions monitoring downtime and excess emissions for the reporting period. See the enclosed log for details.

#### Continuous Emissions Monitoring – No. 3 Recovery Furnace

	3rd Quarter	4th Quarter	Semi-Annual Period
Monitor Downtime	0.79 %	0.57 %	0.68 %
Excess Emission	0.00 %	0.00 %	0.00 %
Overall Compliance	99.21 %	99.43 %	99.32 %

### Condition 07.16(A) Equip ID 2510

**Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.07.16.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation within surrogate monitoring parameters
- Cause and corrective actions are detailed on the enclosed logs.

During the reporting period, there was no instance of scrubber monitoring range deviation.

### Condition 07.16(B) Equip ID 5110

**Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.07.16.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation within surrogate monitoring parameters.
- Cause and corrective actions are detailed on the enclosed logs.

During the reporting period, there was no instance of scrubber monitoring range deviation.

### Condition 07.17(A) Equip ID 2723

**Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

## 2017 Fourth Quarter CEM Report Summaries

- The specific permit condition for which exceptions are being noted is 5.C.07.17.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous TRS data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

A summary is listed below for the continuous emissions monitoring downtime and excess emissions for the reporting period.

### Continuous Emissions Monitoring – No. 2 Lime Kiln

	3rd Quarter	4th Quarter	Semi-Annual Period
<b>Monitor Downtime</b>	1.69 %	1.56 %	1.65 %
<b>Excess Emission</b>	0.00 %	0.00 %	0.00 %
<b>Overall Compliance</b>	98.31 %	98.44 %	98.38 %

#### **Condition 07.18(A1) Equip ID 2723**

The lime kiln modifications authorized by Construction Permit 2440-0005-DA have not occurred; therefore the requirements of this condition applicable to the No. 2 Lime Kiln (ID 2723) are not yet applicable. If/when the modifications occur, Facility-Wide condition FW.2 will apply.

## 2017 Fourth Quarter CEM Report Summaries

### Title V Permit ID 08 – Utilities

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
08.1(A)	2550	N/A	N/A	Refers to FW.4.
08.1(B)	2605 & 3705	Yes	Quarterly	See note below.
08.2(A)	2550	N/A	N/A	Refers to FW.4.
08.2(B1)	2605 & 3705	Yes	Semi-annual	See note below.
08.2(B2)	2605 & 3705	No	N/A	N/A
08.2(C)	2605 & 3705	No	N/A	N/A
08.3(A)	2550	No	N/A	N/A
08.3(B)	2605 & 3705	No	N/A	N/A
08.4	2550	Yes	Quarterly	Submitted under separate cover.
08.5	2605 & 3705	Yes	Annual	Submitted under separate cover.
08.6	2605 & 3705	Yes	Semi-annual	See note below.
08.7	2605, 3705, 5260, 5270, & 9820	Yes	Semi-annual	See note below.
08.8	2605, 3705, 5260, 5270, & 9820	N/A	N/A	Refers to MACT conditions.

#### Condition 08.1(B) Equip IDs 2605 & 3705

#### Reporting Frequency: Quarterly

For the purposes of using this report as a cross reference when completing DHEC annual reporting form 3650, the following information is being included with this report pursuant to DHEC form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.08.1.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous opacity data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

A summary is listed below for the continuous opacity monitoring monitor downtime and excess emissions for the quarter. The precipitator bypass minutes are also listed below.

## 2017 Fourth Quarter CEM Report Summaries

### Continuous Opacity Monitoring

	No. 1 Combination Boiler (ID 2605)	No. 2 Combination Boiler (ID 3705)
Monitor Downtime	1.18 %	1.63 %
Excess Emissions	0.00 %	0.19 %
Overall Compliance	98.81 %	98.17 %
Precipitator Bypass	1036 minutes	564 minutes

There were no periods of 3-hour opacity episodes during the quarter for either boiler.

There was no trip of the precipitator for No. 1 Combination Boiler, and only one trip of the precipitator for No. 2 Combination Boiler within the quarter. Specific details are on the enclosed logs for each boiler.

#### Condition 08.2(B1) Equip IDs 2605 & 3705

**Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting form 3650, the following information is being included with this report pursuant to DHEC form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.08.2.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous opacity data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

A summary is listed below for the continuous opacity monitoring monitor downtime and excess emissions for the semi-annual reporting period. The precipitator bypass minutes are also listed below.

### Continuous Opacity Monitoring

	No. 1 Combination Boiler (ID 2605)	No. 2 Combination Boiler (ID 3705)
Monitor Downtime	0.90 %	1.11 %
Excess Emissions	0.00 %	0.15 %
Overall Compliance	99.10 %	98.75 %
Precipitator Bypass	1692 minutes	1182 minutes

There was no trip of the precipitator for No. 1 Combination Boiler and only two brief trips of the precipitator for No. 2 Combination Boiler within the semi-annual period. Specific details are on the enclosed logs for each boiler.

#### Condition 08.6 Equip IDs 2605 & 3705

**Reporting Frequency: Semi-Annually**

Tire-derived fuel (TDF) rate records for the semi-annual reporting period indicate that there were no rates above the 1.5-TPH limit.



## 2017 Fourth Quarter CEM Report Summaries

### Condition 08.7

Equip IDs 2605, 3705, 5260, 5270, & 9820

Reporting Frequency: Semi-Annually

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.08.7.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is positive operation of flame failure system and vent valve position.
- Cause and corrective actions are detailed on the enclosed logs.

During the semi-annual period, there were 16 vents of the low volume high concentration (LVHC) gas system, and 5 vents of the high volume low concentration (HVLC) gas system, due to a variety of causes.

Note: Reports required under 40 CFR Part 60 Subpart S and General Provisions are being submitted separately to the Air Toxics Group. A copy is attached to this report for your review.

### Title V Permit ID 09 – Waste Treatment

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
09.1(A)	9800 & 9801	No	N/A	N/A
09.1(B)	2902 through 2905	N/A	N/A	Refers to FW.4
09.2	2902 through 2905	No	N/A	N/A
09.3	2903	Yes	Semi-annual	See note below.
09.4	9801	N/A	N/A	Refers to 08.7
09.5	9801	N/A	N/A	Refers to MACT conditions

### Condition 09.3

Equip ID 2903

Reporting Frequency: Semi-Annually

Monthly records indicate the No. 1 Holding Basin Pump No. 2 did not operate more than 7000 hours per year.

## 2017 Fourth Quarter CEM Report Summaries

### Title V Permit ID 10 – Storage Tanks

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
10.1	1100	No	N/A	N/A
10.2	1100	No	N/A	N/A

### Title V Permit ID 11 – Miscellaneous

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
11.1	2900 & 1000	N/A	N/A	Refer to FW.4

### Facility Wide Conditions

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
FW.1	All	No	N/A	N/A
FW.2	2723	Yes	Semi-annual	See note below.
FW.3	2723 & 5105	No	N/A	N/A
FW.4	1300, 2000, 2005, 4600, 4605, 4100, 4110, 9700, 9701A, 9701B, 9702, 9703, 9704, 2000, 4610, 4120, 4130, 9900, 2515, 2520, 5115, 5120, 2700, 2701, 2702, 2703, 2550, 2902, 2903, 2904, 2905, 2900, & 1100	Yes	Semi-annual	See note below.
FW.5	5210, 5240, 2400,	Yes	Semi-annual	See notes below.
FW.6	5100, 5260, 5260C,			
FW.7	2605, & 3705			
		No	N/A	N/A

## 2017 Fourth Quarter CEM Report Summaries

### Condition FW.2 Equip ID 2723

Reporting Frequency: Semi-Annually

Lime Kiln production rates are shown below:

Month	Kiln Production TPD	12- Month Rolling Avg
June-16	346	344
July-16	248	333
August-16	347	329
September-16	394	336
October-16	401	341
November-16	299	337
December-16	287	334
January-17	390	342
February-17	379	344
March-17	316	350
April-17	281	342
May-17	373	338
June-17	432	346
July-17	338	353
August-17	350	353
September-17	370	351
October-17	335	346
November-17	386	353
December-17	394	362

The 12-month rolling sum for lime kiln operation did not exceed the 465-ton per day limit during the reporting period.

### Condition FW.4

Equip IDs 1300, 2000, 2005, 4600, 4605, 4100, 4110,  
9700, 9701A, 9701B, 9702, 9703, 9704, 2000, 4610,  
4120, 4130, 9900, 2515, 2520, 5115, 5120, 2700,  
2701, 2702, 2703, 2550, 2902,  
2903, 2904, 2905, 2900, & 1100

Reporting Frequency: Semi-Annually

Visual emissions inspections were conducted on the sources listed below and the frequencies indicated. There were no incidences of abnormal VE results during the semi-annual reporting period.

### Condition FW.5(A1) Equip ID 5260C

Reporting Frequency: Semi-Annually

Records of liquid flow and liquid pH are maintained. There were no incidences of variances from established parameters during the reporting period.

## 2017 Fourth Quarter CEM Report Summaries

### **Condition FW.5(A2)**

**Equip IDs 5210, 5240, 2400, 5100,  
5260, 5260C, 2605, & 3705**

**Reporting Frequency: Semi-Annually**

Records of the combination boiler that is combusting NCG streams, the daily bark fired in each combination boiler, and the daily Kraft pulp production are maintained. The daily bark/Kraft pulp production ratio and the 30-day rolling average ratio are calculated. There were no incidences of variances from the minimum level during the reporting period.

### **Condition FW.5(C)**

**Equip IDs 5210, 5240, 2400, 5100,  
5260, 5260C, 2605, & 3705**

**Reporting Frequency: Semi-Annually**

Records of monthly and 12-month rolling sums of SO<sub>2</sub> emissions are maintained. There were no incidences of monthly 12-month sums above the annual SO<sub>2</sub> PSD BACT limit during the reporting period.

### **Condition FW.6**

**Equip IDs 5210, 5240, 2400, 5100,  
5260, 5260C, 2605, & 3705**

**Reporting Frequency: Semi-Annually**

Records of monthly and 12-month rolling average of unbleached pulp production are maintained. There were no incidences of rolling 12-month averages above the production limit during the reporting period.

## 2017 Fourth Quarter CEM Report Summaries

### Conditions for MACT Affected Sources

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
MACT.1(C)	5210, 5220, 5230, 5240, 5250, 2400, 2500, 5100, 2605, & 3705	Yes	Semi-annual	See note below.
MACT.2(A)	5210, 5220, 2400, 2500, 5100, 9800, & 9801	Yes	Semi-annual	See note below.
MACT.3(A)	5300	Yes	Semi-annual	See note below.
MACT.4	5210, 5220, 5230, 5240, 5250, 5300, 2400, 2500, 5100, 2605, 3705, 9800, & 9801	No	N/A	N/A
MACT.5(A2)	2505, 2723, & 5105	Yes	Quarterly	See note below.
MACT.5(C)	2510 & 5110	Yes	Quarterly	See note below.
MACT.6	2010 & 4610	Yes	Semi-annual	See note below.
MACT.7	5210, 5220, 5230, 5240, 5250, 5300, 2400, 2500, 2505, 2510, 2723, 5100, 5105, 5110, 9800, & 9801	No	N/A	N/A
MACT.8, MACT.9, & MACT.10	5210, 5220, 5230, 5240, 5250, 5300, 2400, 2500, 2505, 2510, 2723, 5100, 5105, 5110, 2605, 3705, 9800, & 9801	No	N/A	N/A

## **2017 Fourth Quarter CEM Report Summaries**

### **Condition MACT.1(C)**

**Equip IDs 5210, 5220, 5230, 5240, 5250  
2400, 2500, 5100, 2605, & 3705**

**Reporting Frequency: Semi-Annually**

Excess emissions and CMS downtime were less than 1% and 5% respectively for all systems. See the attached MACT I report for details.

### **Condition MACT.2(A)**

**Equip IDs 5210, 5220, 2400, 2500,  
5100, 9800, & 9801**

**Reporting Frequency: Semi-Annually**

Condensate Collection and Treatment System excess emissions were greater than 1% of the semi-annual period operating time. CMS downtime was less than 5% of operating time. See the attached MACT I report for details.

### **Condition MACT.3(A)**

**Equip ID 5300**

**Reporting Frequency: Semi-Annually**

Excess emissions and CMS downtime were less than 1% and 5% respectively for all systems. See the attached MACT I report for details.

### **Condition MACT.5(A2)**

**Equip IDs 2505, 2723, & 5105**

**Reporting Frequency: Quarterly**

The record of exceedances is provided in the attached MACT II report.

### **Condition MACT.5(C)**

**Equip IDs 2510 & 5110**

**Reporting Frequency: Quarterly**

The record of exceedances is provided in the attached MACT II report.

### **Condition MACT.6**

**Equip IDs 2010 & 4610**

**Reporting Frequency: Semi-Annually**

See the attached POWC MACT report.



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## CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Kraft Process - Bleach Plant Scrubber

Report Period 7/1/17 to 12/31/17

Permit Conditions: 5.C.03.1 & MACT.3(A)

This report is for variations outside of surrogate monitoring parameters or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	Parameter	Duration (Minutes)	Nature and Cause of Incident	Corrective Action
			pH, Flow, delta P			
There were no excursion events or downtime during the month of July 2017.						
There were no excursion events or downtime during the month of August 2017.						
There were no excursion events or downtime during the month of September 2017.						
There were no excursion events or downtime during the month of October 2017.						
There were no excursion events or downtime during the month of November 2017.						
1	12/28/2017	4:00 PM	pH	300	pH Control system placed in manual control	Returned system to cascade (auto) control

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: \_\_\_\_\_



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## CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Chlorine Dioxide Scrubber

Report Period 7/1/17 to 12/31/17

Permit Condition: 04.1

This report is for variations outside of surrogate monitoring parameters or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	Parameter	Duration (Minutes)	Nature and Cause of Incident	Corrective Action
			pH, Flow, delta P			
There were no excursion events or downtime during the month of July 2017.						
There were no excursion events or downtime during the month of August 2017.						
There were no excursion events or downtime during the month of September 2017.						
There were no excursion events or downtime during the month of October 2017.						
There were no excursion events or downtime during the month of November 2017.						
There were no excursion events or downtime during the month of December 2017.						

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: \_\_\_\_\_





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# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Recovery Boiler No. 2

Report Period 7/1/17 to 12/31/17

Permit Conditions 5.C.07.2(A), 5.C.14, & MACT.5(A2)

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	% Opacity or ppm	Monitor (Check One)				Nature and Cause of Incident	Corrective Action
				OPA	TRS	O2	Duration (Minutes)		
1	7/5/2017	4:49 PM	-	x			6	Monitor out of alignment	Re aligned optical head
2	7/5/2017	4:24 PM	avg>20%	x			374	Broken chain in north side of EP	Pulled liquor, adjusted air, isolated north side to make repairs
3	7/5/2017	5:06 PM	46	x			6	Bypass north side of EP	Cut boiler air, cut back on liquor firing
4	7/18/2017	9:12 PM	avg>20%	x			204	North inlet field scrapper down, Shaft on north damper broke	Cut air, removed all liquor from boiler
5	7/18/2017	9:18 PM	38	x			6	North inlet field scrapper down, Shaft on north damper broke	Cut air, removed all liquor from boiler
6	7/18/2017	10:54 PM	74.5	x			66	North inlet field scrapper down, Shaft on north damper broke	Cut air, removed all liquor from boiler
7	7/19/2017	12:06 AM	36	x			6	North inlet field scrapper down, Shaft on north damper broke	Shut north inlet damper
8	7/19/2017	12:12 PM	59	x			12	North inlet field scrapper down, Shaft on north damper broke	Shut north inlet damper
1	8/20/2017	10:00 PM	avg>20%	x			66	South side EP drag chain broken	Isolated south EP and removed liquor from boiler. Begin RB shutdown procedure.
2	8/20/2017	10:48 PM	48	x			18	South side EP drag chain broken	Isolated south EP and removed liquor from boiler. Begin RB shutdown procedure.
3	8/20/2017	11:10 PM	-	x			5	Check monitor alignment	Align monitor
4	8/20/2017	11:42 PM	40	x			6	South side EP drag chain broken	Isolated south EP and removed liquor from boiler. Begin RB shutdown procedure.
5	8/20/2017	11:54 PM	39	x			18	South side EP drag chain broken	Isolated south EP and removed liquor from boiler. Begin RB shutdown procedure.
6	8/21/2017	2:24 AM	avg>20%	x			174	South side EP drag chain broken	Isolated south EP and removed liquor from boiler. Begin RB shutdown procedure. Boiler down
7	8/24/2017	4:18 PM	avg>20%	x			126	South side EP drag chain broken	Shut down boiler
8	8/27/2017	6:45 AM	-	x			10	Monitor out of alignment	Re aligned optical head
9	9/28/2017	8:42 AM	-	x			226	Monthly PM and off stack alignment	Returned unit to service
1	10/28/2017	10:00 AM	55	x			18	North center EP field tripped	Pulled liquor, cut air, called maint. to reset
2	10/28/2017	10:48 PM	58	x			90	North center EP field tripped	Pulled liquor, called maintenance to reset
3	10/28/2017	11:12 PM	avg>20%	x			90	North center EP field tripped	Pulled liquor, called maintenance to reset
4	10/29/2017	12:06 AM	43	x			12	North center EP field tripped	Pulled liquor, called maintenance to reset
5	10/29/2017	8:35 PM	-	x			15	Monitor out of alignment	Re aligned optical head
6	10/30/2017	6:06 PM	-	x			25	Monitor out of alignment	Re aligned optical head
7	10/31/2017	9:54 AM	-	x			18	Monitor out of alignment	Re aligned optical head
8	10/31/2017	6:18 PM	-	x			54	Monitor out of alignment	Re aligned optical head
1	11/1/2017	10:05 AM	-	x			10	Monitor out of alignment	Re aligned optical head
2	11/9/2017	9:30 AM	55	x			6	Unknown	No action
3	11/12/2017	3:00 AM	-	x			30	Monitor out of alignment	Re aligned optical head
4	11/15/2017	2:48 PM	-	x			42	Monitor out of alignment	Re aligned optical head
5	11/15/2017	7:18 PM	-	x			54	Monitor out of alignment	Re aligned optical head
6	11/16/2017	2:30 PM	-	x			30	Purge alarm	Replaced purge switch, aligned stack
7	11/16/2017	10:00 PM	-	x			36	Monitor out of alignment	Re aligned optical head
8	11/17/2017	1:42 PM	-	x			18	Monitor out of alignment	Re aligned optical head
9	11/18/2017	8:12 AM	-	x			36	Monitor out of alignment	Re aligned optical head
10	11/24/2017	7:36 AM	-	x			34	Monitor out of alignment	Re aligned optical head
11	11/26/2017	1:50 AM	-	x			12	Monitor out of alignment	Re aligned optical head
12	11/26/2017	4:50 PM	-	x			15	Monitor out of alignment	Re aligned optical head



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# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Recovery Boiler No. 2

Report Period 7/1/17 to 12/31/17

Permit Conditions 5.C.07.2(A), 5.C.14, & MACT.5(A2)

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	% Opacity or ppm	Monitor (Check One)				Nature and Cause of Incident	Corrective Action
				OPA	TRS	O2	Duration (Minutes)		
13	11/27/2017	12:18 AM	-	x			102	Monitor out of alignment	Re aligned optical head
14	11/27/2017	2:24 PM	-	x			96	Monitor out of alignment	Re aligned optical head
15	11/27/2017	10:15 PM	-	x			10	Monitor out of alignment	Re aligned optical head
16	11/30/2017	1:42 AM	-	x			12	Monitor out of alignment	Re aligned optical head
1	12/1/2017	5:06 PM	-	x			72	Monitor out of alignment	Re aligned optical head
2	12/2/2017	11:12 AM	-	x			33	Monitor out of alignment	Re aligned optical head
3	12/3/2017	5:17 AM	-	x			42	Monitor out of alignment	Re aligned optical head
4	12/4/2017	5:09 AM	-	x			19	Monitor out of alignment	Re aligned optical head
5	12/11/2017	4:00 PM	-	x			210	Monitor out of alignment	Re aligned optical head
6	12/12/2017	9:24 AM	-	x			30	Monitor out of alignment	Re aligned optical head
7	12/15/2017	7:18 AM	-	x			24	Monitor out of alignment	Re aligned optical head
8	12/15/2017	2:05 PM	-	x			10	Monitor out of alignment	Re aligned optical head
9	12/16/2017	9:20 AM	-	x			10	Monitor out of alignment	Re aligned optical head
10	12/16/2017	2:00 PM	-	x			24	Monitor out of alignment	Re aligned optical head
11	12/17/2017	12:12 PM	45	x			54	Center EP field tripped	Pulled liquor and isolate north EP
12	12/17/2017	1:54 PM	52	x			6	Isolating north side of EP due to ground wire	Cut liquor and add air
13	12/20/2017	11:09 AM	-	x			104	Monitor out of alignment	Re aligned optical head
14	12/20/2017	11:37 PM	-	x			75	Monitor out of alignment	Re aligned optical head
15	12/21/2017	8:47 AM	-	x			66	Monitor out of alignment	Re aligned optical head
16	12/21/2017	4:37 PM	-	x			98	Monitor out of alignment	Re aligned optical head
17	12/23/2017	10:16 AM	-	x			160	Monitor out of alignment	Re aligned optical head
18	12/24/2017	1:33 AM	-	x			65	Monitor out of alignment	Re aligned optical head
19	12/24/2017	7:58 AM	-	x			57	Monitor out of alignment	Re aligned optical head
20	12/24/2017	3:15 PM	-	x			38	Monitor out of alignment	Re aligned optical head
21	12/25/2017	1:30 PM	-	x			158	Monitor out of alignment	Re aligned optical head
22	12/25/2017	5:25 PM	-	x			110	Monitor out of alignment	Re aligned optical head
23	12/26/2017	7:29 AM	-	x			51	Monitor out of alignment	Re aligned optical head
24	12/26/2017	3:07 AM	-	x			123	Monitor out of alignment	Re aligned optical head
25	12/27/2017	4:00 AM	-	x			132	Monitor out of alignment	Re aligned optical head
26	12/30/2017	5:00 AM	36	x			6	Unknown spike	Came back down
27	12/30/2017	9:20 AM	-	x			30	Monitor out of alignment	Re aligned optical head
28	12/30/2017	10:18 PM	-	x			48	Monitor out of alignment	Re aligned optical head

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin

General Manager

Signature:

\_\_\_\_\_



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# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Lime Kiln No. 2

Report Period 7/1/17 to 12/31/17

Permit Conditions 5.C.07.2(A), 5.C.07.12(B), 5.C.17(A), & MACT.5(A2)

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	% Opacity or ppm	Monitor (Check One)				Duration (Minutes)	Nature and Cause of Incident	Corrective Action
				OPA	TRS	O2				
1	7/8/17	12:24 PM	63	x				6	O2 analyzer tripped EP	Reset EP
2	7/8/17	5:36 PM	70	x				6	O2 analyzer tripped EP	Reset EP
3	7/8/17	8:18 PM	71	x				6	O2 analyzer tripped EP	Reset EP, replaced moisture pump on gas analyzer
4	7/19/17	10:30 AM	80	x				100	Kiln plugged cool down to remove ring	Mud feed was stopped and cool down procedure was initiated
5	7/19/17	12:18 PM	40	x				12	Kiln plugged cool down to remove ring	Mud feed was stopped and cool down procedure was initiated
6	7/19/17	12:42 PM	22	x				6	Kiln plugged cool down to remove ring	Mud feed was stopped and cool down procedure was initiated
7	7/19/17	1:00 PM	22	x				6	Kiln plugged cool down to remove ring	Mud feed was stopped and cool down procedure was initiated
8	7/19/17	11:00 AM	avg>20%	x				126	Kiln plugged cool down to remove ring	Mud feed was stopped and cool down procedure was initiated
9	7/20/17	6:45 AM	-	x				255	Failed morning cal.	Blew units out, cleaned lenses, realigned. Ran cal.
10	7/31/17	6:45 AM	-	x				285	Failed morning cal.	Forced cal. And cleared alarm
1	8/5/17	6:45 AM	-	x				180	Opacity reading high	Cleaned lens
2	8/7/17	7:54 AM	88	x				6	Unknown	Opacity returned to normal
3	8/7/17	9:18 AM	23	x				6	Unknown	Opacity returned to normal
4	8/7/17	9:30 AM	-	x				330	Fault code on monitor	Realigned head, changed upscale cal value, adjst Iris and ran calibration
5	8/8/17	12:30 PM	-	x				90	Fault code on monitor	Cleaned lens, changed upscale cal value, tightened wire on terminal block
6	8/9/17	6:30 AM	-	x				459	Failed morning cal (low zero cal)	Cleaned lens, ran initial cal
7	8/18/17	6:00 PM	25	x				6	Heavy rain in area. No operational issues noted at time.	Rain stopped and opacity returned to normal
1	9/26/17	9:00 AM	-	x				300	Monthly PM and off stack calibration	Return monitor to service
1	10/6/17	10:18 AM	-	x				18	Monitor unavailable	Return monitor to service
2	10/6/17	11:00 AM	43	x				60	Cooling down kiln due to plug	Cleaned opacity lens, heated kiln back up
3	10/6/17	1:06 PM	51	x				12	Cooling down kiln due to plug	Cleaned opacity lens, heated kiln back up
4	10/6/17	11:24 AM	avg>20%	x				78	Cooling down kiln due to plug	Cleaned opacity lens, heated kiln back up
5	10/6/17	2:35 AM	-	x				15	Getting purge failure alarm	Changed purge filter
6	10/9/17	9:30 AM	-	x				60	High drift on zero	Cleaned opacity lens, checked alignment
7	10/11/17	4:54 PM	47	x				12	Starting up kiln	Stabilize operations
8	10/13/17	2:18 PM	-	x				30	Checking calibration of unit	Completed calibration check
9	10/15/17	9:00 PM	-	x				80	Reading low	Cleaned and calibrated
10	10/24/17	10:00 AM	-	x				90	Zero drift low	Check alignment, ran zero and upscale cal kit
1	11/8/17	8:30 AM	-	x				30	Zero drift low	Clean lens and ran manual cal
2	11/27/17	8:30 AM	-	x				360	Zero drift low	Check alignment, found iris set screw loose, tighten set screw and reset iris.
1	12/12/17	5:40 PM	-	x				15	Opacity reading high after kiln blasting	Cleaned lens
2	12/13/17	6:30 AM	-	x				450	Failed morning cal., zero drift low	Checked alignment, cleaned lens, ran calibration kit
3	12/13/17	4:40 PM	-	x				85	Reading low	Cleaned lens, ran initial cal
4	12/21/17	10:15 AM	-	x				150	Low zero on daily calibration	Adjusted iris, ran calibrations
5	12/22/17	8:00 AM	-	x				45	Low zero on daily calibration	Adjusted iris, ran calibrations
6	12/26/17	4:00 PM	58	x				12	Kiln tripped, Restarting process	Stabilize operations



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## CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Lime Kiln No. 2

Report Period 7/1/17 to 12/31/17

Permit Conditions 5.C.07.2(A), 5.C.07.12(B), 5.C.17(A), & MACT.5(A2)

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	% Opacity or ppm	Monitor (Check One)				Nature and Cause of Incident	Corrective Action
				OPA	TRS	O2	Duration (Minutes)		
7	12/28/17	8:00 AM	-	x			360	Failed cal, zero drift low	Cleaned lens, checked alignment, blew unit out, changed purge filters
8	12/28/17	3:24 PM	37	x			6	Unknown	Opacity returned to normal

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: \_\_\_\_\_



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## CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

### Smelt Dissolving Tank Vent Scrubber

ID 2510, ID 5110

SIP, NSPS

Report Period 7/1/17 to 12/31/17

Permit Conditions 5.C.07.2; 07.16(A) & (B); 07.B.MACT.5

This report is for variations outside of surrogate monitoring parameters or permit exception conditions.

Incident No.	Date	Start Time (am or pm)	Parameter	Duration (Minutes)	Nature and Cause of Incident	Corrective Action
			Pump Pressure, Flow, delta P			
There were no excursion events or downtime during the month of July 2017.						
There were no excursion events or downtime during the month of August 2017.						
There were no excursion events or downtime during the month of September 2017.						
There were no excursion events or downtime during the month of October 2017.						
There were no excursion events or downtime during the month of November 2017.						
There were no excursion events or downtime during the month of December 2017.						

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin

General Manager

Signature:

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# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Recovery Boiler No. 3

Report Period 7/1/17 to 12/31/17

Permit Conditions 5.C.07.3, 5.C.07.12, 5.C.15, & MACT.5(A2)

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	% Opacity or ppm	Monitor (Check One)				Nature and Cause of Incident	Corrective Action
				OPA	TRS	O2	Duration (Minutes)		
1	7/20/17	9:48 AM	Avg>20%	x			66	EP field issues from breaker trip	Cut liquor, reduced air, added oil, replaced breaker
2	7/20/17	1:06 PM	Avg>20%	x			96	EP field issues from breaker trip	Cut liquor, reduced air, added oil, replaced breaker
There were no excursion events or downtime during the month of August 2017.									
1	9/28/17	11:45 AM	-	x			195	Monthly PM and off stack alignment	Returned unit to service
There were no excursion events or downtime during the month of October 2017.									
There were no excursion events or downtime during the month of November 2017.									
1	12/25/17	2:12 AM	49	x			6	Flight broke off EP drag chain, plugged rotary valve	Pull liquor, close EP inlet gate, remove metal from rotary valve
2	12/25/17	3:18 AM	46	x			12	Flight broke off EP drag chain, plugged rotary valve	Pull liquor, close EP inlet gate, remove metal from rotary valve
3	12/25/17	3:36 AM	36	x			6	Flight broke off EP drag chain, plugged rotary valve	Pull liquor, close EP inlet gate, remove metal from rotary valve
4	12/25/17	3:48 AM	48	x			60	Flight broke off EP drag chain, plugged rotary valve	Pull liquor, close EP inlet gate, remove metal from rotary valve
5	12/25/17	3:48 AM	Avg>20%	x			60	Flight broke off EP drag chain, plugged rotary valve	Pull liquor, close EP inlet gate, remove metal from rotary valve
6	12/25/17	7:54 AM	47	x			6	Flight broke off EP drag chain, plugged rotary valve	Pull liquor, close EP inlet gate, remove metal from rotary valve
7	12/25/17	9:00 AM	60	x			36	Flight broke off EP drag chain, plugged rotary valve	Pull liquor, close EP inlet gate, remove metal from rotary valve
8	12/25/17	9:00 AM	Avg>20%	x			198	Flight broke off EP drag chain, plugged rotary valve	Pull liquor, close EP inlet gate, remove metal from rotary valve

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: \_\_\_\_\_



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# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Recovery Boiler No. 3

Report Period 7/1/17 to 12/31/17

Permit Condition 5.C.07.12(B)

This report is for indicated excessive NOx (reported in ppm), monitor downtime or repair (including O2 monitor), or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	% Opacity or ppm	Monitor (Check One)				Nature and Cause of Incident	Corrective Action
				OPA	TRS	O2	Duration (Minutes)		
1	7/2/17	8:20 AM	-		x		145	Work for RB3 TRS	Completed work
2	7/4/17	9:48 AM	-		x		52	High span drift	Ran initial calibration
3	7/6/17	6:00 AM	-		x		195	Failed cal, TRS span drift	Adjust PMT voltage, ran initial and manual cal
4	7/7/17	9:30 AM	-		x		210	High span drift	Rebuilt head in probe box, ran manual and initial cal
1	8/15/17	1:00 PM	-		x		120	Quarterly maintenance	Preventative maintenance checks. Returned monitor to service
2	8/17/17	8:00 AM	-		x		85	Replaced cal gas bottle	Ran initial and normal cal
1	9/27/17	12:30 PM	-		x		180	Monthly PM	Returned monitor to service
1	10/30/17	8:30 AM	-		x		330	O2 drift	Changed cal. Gas bottle, changed probe filter, spanned citi cell, and ran cal
1	11/3/17	8:30 AM	-		x		150	Monthly PM	Preventative maintenance checks. Returned monitor to service
2	11/8/17	2:00 PM	-		x		60	Replaced cal gas bottle	Ran manual and initial cal
1	12/6/17	12:00 PM	-		x		210	Monthly PM	Checked flows, rebuilt pump, tuned citi cell, ran calibration

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: \_\_\_\_\_



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# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Recovery Boiler No. 2

Report Period 7/1/17 to 12/31/17

Permit Condition 5.C.07.14

This report is for indicated excessive TRS (reported in ppm), monitor downtime or repair (including O2 monitor), or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	% Opacity or ppm	Monitor (Check One)				Nature and Cause of Incident	Corrective Action
				OPA	TRS	O2	Duration (Minutes)		
1	7/6/17	4:30 PM	-		x		278	Zero drift in negative	Adjusted BKG coeff span and PMT voltage, ran initial and normal cal
2	7/7/17	1:00 PM	-		x		300	PM on probe head	Rebuilt probe head
3	7/8/17	8:00 AM	-		x		420	Drift on TRS Span	Adjusted voltage on 43i PMT, ran initial and normal cal
1	8/9/17	8:00 AM	-		x		105	TE cooler bad	Replaced TE cooler
2	8/15/17	9:00 AM	-		x		240	Quarterly maintenance	Preventative maintenance checks. Returned monitor to service
3	8/17/17	8:00 AM	-		x		85	Replaced cal gas bottle	Ran initial and normal cal
1	9/4/17	4:05 PM	-		x		30	Reading low	Ran cal., adjusted zero
2	9/5/17	12:30 PM	-		x		120	Reading low	Cleaned eductor, ran normal cal
3	9/27/17	9:00 AM	-		x		210	Monthly PM	Preventative maintenance checks. Returned monitor to service
1	10/22/17	6:24 AM	-		x		256	Failed cal TRS zero	Ran normal cal.
2	10/30/17	8:30 AM	-		x		330	Monthly PM	Changed cal gas bottle, ran cal
1	11/3/17	11:00 AM	-		x		210	Monthly PM	Preventative maintenance checks. Returned monitor to service
2	11/8/17	5:30 AM	-		x		1440	Failed cal span	Rebuilt sample pump, cleaned eductor, ran cal
3	11/9/17	8:00 AM	-		x		300	Monitor in fault status	Adjusted PMT voltage, ran calibration
4	11/10/17	5:30 AM	-		x		240	Failed cal span	Cleaned eductor, ran normal cal
5	11/10/17	4:00 PM	-		x		150	Replaced eductor assembly	Factory technician onsite to replace eductor assembly
6	11/12/17	5:30 AM	-		x		720	Failed cal span	Cleaned eductor, replaced solenoid valve, ran manual and initial cal.
7	11/15/17	5:30 AM	-		x		315	Failed cal span	Cleaned eductor, ran normal and initial cal
8	11/16/17	8:30 AM	-		x		270	Checking monitor	Cleaned eductor, changed filters, replaced scrubber beads, ran calibration
9	11/17/17	8:45 AM	-		x		165	TRS Failed cal	Ran manual, initial, and normal cal.
10	11/20/17	8:00 AM	-		x		45	Failed cal TRS zero drift	Ran manual, initial, and normal cal.
11	11/21/17	9:25 AM	-		x		60	Failed cal TRS span drift	Ran cal. Installed rental unit by E360 in parallel to use as comparison
12	11/25/17	6:47 AM	-		x		27	Drift on TRS Span	Ran cal.
13	11/27/17	5:30 AM	-		x		60	Drift on TRS Span	Ran manual, initial, and normal cal.
1	12/2/17	8:11 AM	-		x		29	Drift on TRS Span	Ran cal.
2	12/5/17	9:00 AM	-		x		360	Monthly PM	Changed pump, replaced orifice, changed beads and charcoal, calibrated citi cell, ran calibrations
3	12/6/17	9:00 AM	-		x		180	Monthly PM	Changed pump, replaced orifice, changed beads and charcoal, calibrated citi cell, ran calibrations
4	12/14/17	9:15 AM	-		x		105	High drift on TRS	Ran initial and normal cal
5	12/20/17	5:55 PM	-		x		1145	Checking monitor, inadvertently left in maintenance mode	Cleaned eductor, changed filters, ran calibration

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin

General Manager

Signature: \_\_\_\_\_





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# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Recovery Boiler No. 3

Report Period 7/1/17 to 12/31/17

Permit Condition 5.C.07.15

This report is for indicated excessive TRS (reported in ppm), monitor downtime or repair (including O2 monitor), or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	% Opacity or ppm	Monitor (Check One)				Nature and Cause of Incident	Corrective Action
				OPA	TRS	O2	Duration (Minutes)		
1	7/2/17	8:20 AM	-		x		145	Failed cal, TRS span drift, low cal gas pressure	Changed cal. Gas bottle and ran cal
2	7/4/17	9:48 AM	-		x		52	Working on Nox monitor	Ran cal on monitor
3	7/6/17	6:00 AM	-		x		195	Failed cal, TRS span drift	Adjust PMT voltage, ran initial and manual cal
4	7/7/17	9:30 AM	-		x		210	High TRS span	Rebuilt head in probe box.
5	7/21/17	6:45 PM	-		x		55	Heat exchanger over temp alarm	Replaced airline on heat exchanger
1	8/15/17	1:00 PM	-		x		120	Quarterly maintenance	Preventative maintenance checks. Returned monitor to service
2	8/17/17	8:00 AM	-		x		85	Replaced cal gas bottle	Ran initial and normal cal
1	9/27/17	12:30 PM	-		x		180	Monthly PM	Returned monitor to service
1	10/30/17	8:30 AM	-		x		330	O2 drift	Changed cal. Gas bottle, changed probe filter, spanned citi cell, and ran cal
1	11/3/17	8:30 AM	-		x		150	Monthly PM	Preventative maintenance checks. Returned monitor to service
2	11/8/17	2:00 PM	-		x		60	Replaced cal gas bottle	Ran manual and initial cal
1	12/6/17	12:00 PM	-		x		210	Monthly PM	Rebuilt pump, tuned citi cell, ran calibrations

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: \_\_\_\_\_



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# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Lime Kiln No. 2

Report Period 7/1/17 to 12/31/17

Permit Conditions 5.C.07.17(A)

This report is for indicated excessive TRS (reported in ppm), monitor downtime or repair (including O2 monitor), or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	% Opacity or ppm	Monitor (Check One)				Nature and Cause of Incident	Corrective Action
				OPA	TRS	O2	Duration (Minutes)		
1	7/3/17	8:30 AM	-		x		240	High TRS drift	Rebuilt sample pump and replaced filters
2	7/13/17	8:15 AM	-		x		285	Failed morning cal, TRS span drift	Checked for leaks and restrictions, checked flows; changed probe filter, adjusted Citi cell; ran initial and normal cals
3	7/18/17	12:40 PM	-		x		140	High TRS drift	Repair several leaks in sample line, adjust PMT voltage, ran normal and initial cal
4	7/28/17	6:30 AM	-		x		510	Failed morning cal, TRS span drift	Rebuilt sample pump and replaced filters, adjusted PMT voltage, cleaned orifice in probe box, ran normal and initial cal
1	8/2/17	6:54 AM	-		x		16	High TRS drift	Ran initial cal
2	8/14/17	9:00 AM	-		x		480	Quarterly monitor maintenance	Replaced filters and O-rings, rebuilt probe head, Tuned analyser, replaced citi cell
3	8/30/17	8:00 AM	-		x		60	Failed morning cal, TRS span drift	Cal gas bottle empty, replaced bottle, ran initial and normal cal
1	9/25/17	9:00 AM	-		x		450	Monthly PM	Returned monitor to service
1	10/15/17	3:50 PM	-		x		305	Failed cal on TRS and O2; found water in sample line	Blew water out of lines, rebuilt transport pump, changed scrubber beads, changed sample filters
2	10/18/17	9:45 AM	-		x		40	Failed morning cal on TRS span drift	Ran TRS gas and calibrated 43i, ran initial and normal cal
3	10/24/17	4:20 AM	-		x		50	Checking system	Ran normal cal, system OK
1	11/2/17	9:45 AM	-		x		165	Monthly PM	Preventative maintenance, returned system to operation
2	11/9/17	6:00 AM	-		x		540	Failed cal O2	Changed probe filter, calibrated citi cell, ran normal and initial cals
3	11/10/17	8:00 AM	-		x		420	O2 span drift high	Adjusted citi cell, repaired leaks in sample line, moved input on I/O board
4	11/10/17	6:30 PM	-		x		90	O2 span drift high	Factory service technician calibrating I/O board
5	11/11/17	7:00 AM	-		x		90	Checking system	Factory service technician calibrating I/O board
6	11/15/17	9:30 AM	-		x		120	Replaced faulty I/O board	Replaced board, ran normal calibrations
1	12/7/17	8:45 AM	-		x		195	Monthly PM	Rebuilt pump, changed out scrubber beads, ran calibrations.
2	12/31/17	8:15 AM	-		x		60	O2 span drift low	Adjusted citi cell, ran normal and initial cals

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin

General Manager

Signature: \_\_\_\_\_



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## CONTINUOUS EMISSION MONITOR QUARTERLY REPORT LOG

Combination Boiler No. 1

Reporting Period 10/1/17 to 12/31/17

Permit Conditions 5C.08.1(B), 5C.08.2(B), 5C.08.6, & 5C.08.7

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	% Opacity or ppm	Monitor (Check One)				EP Bypass Time	Nature and Cause of Incident	Corrective Action
				OPA	TRS	O2	Duration (Minutes)			
1	10/10/17	1:10 PM	-	x			42		Dust drift alarm	Cleaned lens and ran calibration
2	10/15/17	4:30 AM	-	x			786	786	Motor bad on EP	Pulled bark, added gas, bypassed EP, completed work
3	10/18/17	7:40 PM	-	x			45		Dirt drift fault	Cleaned lens and ran calibration
4	10/29/17	1:30 PM	-	x			60		Excessive drift noted	Cleaned lens, replaced filters, ran cal.
1	11/11/17	12:00 AM	-	x			18	18	Fire in hopper	Bypassed EP, pulled bark
2	11/14/17	8:00 PM	-	x			65	65	Fire in hopper	Removed bark from boiler, bypass EP
3	11/21/17	6:18 PM	-	x			72		Excessive dirt drift	Cleaned and cal.
4	11/22/17	8:50 AM	-	x			70		Excessive dirt drift	Cleaned and cal.
5	11/27/17	9:06 PM	-	x			96	96	Fire in hopper	Bypassed EP, pulled bark
1	12/5/17	9:48 PM	65	x			6		Starting up from outage	Returned unit to service
2	12/7/17	5:25 AM	-	x			71	71	Fire in hopper	Bypassed EP, pulled bark
3	12/7/17	1:55 PM	-	x			10		High reading on upscale cal	Ran normal cal
4	12/11/17	9:48 AM	-	x			6		Checking system	Ran normal cal
5	12/18/17	8:00 AM	-	x			186		Upscale calibration fault	Cleaned lens, ran calibration kit, calibrated

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin

General Manager

Signature: \_\_\_\_\_



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# CONTINUOUS EMISSION MONITOR QUARTERLY REPORT LOG

Combination Boiler No. 2

Reporting Period 10/1/17 to 12/31/17

Permit Conditions 5C.08.1(B), 5C.08.2(B), 5C.08.6, & 5C.08.7

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	% Opacity or ppm	Monitor (Check One)				EP Bypass Time	Nature and Cause of Incident	Corrective Action
				OPA	TRS	O2	Duration (Minutes)			
1	10/2/17	4:54 PM	80	x			6		Lost inlet TR1	Had to go to remote station to restart TR1
2	10/7/17	7:18 PM	80	x			114		CB2 shut down	Completed shutdown
3	10/14/17	10:36 PM	80	x			6		Unknown	None
4	10/15/17	1:00 AM	52	x			12		Wet bark, dust collector malfunction	Started drags, increased air, cut bark
5	10/18/17	11:24 PM	54	x			6		High steam load	Cut back on bark
6	10/23/17	6:36 PM	50	x			6		Too much undergrate air	Cut back on air
7	10/23/17	7:24 PM	50	x			6		Too much undergrate air	Cut back on air
8	10/30/17	3:42 AM	80	x			6		Fields tripped	Reset fields
9	11/3/17	5:06 AM	44	x			6		Unknown	None
10	11/5/17	9:42 PM	43	x			6		Unknown	None
1	11/12/17	8:08 PM	-	x			80	80	Fire in hopper	Bypass EP, remove bark
2	11/14/17	2:41 PM	68	x			12		Fire in hopper	Remove bark
3	11/14/17	2:54 PM	-	x			226	226	Fire in hopper	Bypass EP, remove bark
4	11/15/17	10:05 PM	-	x			60	60	Fire in hopper	Bypass EP, remove bark
5	11/16/17	3:24 AM	44	x			6		Heavy steam load	Cut bark load
6	11/16/17	5:30 AM	41	x			6		Heavy steam load	Cut bark load
7	11/16/17	9:48 AM	64	x			6		Unknown	Unknown
8	11/16/17	12:00 AM	avg>11%	x					Heavy steam load and blowing IK's	Cut bark load
9	11/18/17	8:00 AM	54	x			6		Blowing IK's	Cut air and bark
10	11/19/17	8:35 AM	-	x			10		Dirt comp. out of range	Cleaned and cal
11	11/27/17	8:12 PM	65	x			6		Blowing IK's	Stopped blowing IK's
1	12/3/17	4:23 AM	-	x			72	72	Fire in hopper	Bypass EP, remove bark
2	12/3/17	5:35 AM	-	x			1440		Monitor failed calibration (zero ok, span high),	Ran calibration
3	12/7/17	3:54 AM	-	x			78	78	Fire in hopper	Bypass EP, remove bark
4	12/11/17	10:36 AM	-	x			6		Checking monitor	Ran calibration
5	12/11/17	8:47 PM	54	x			6		High mill load, wet bark	Increased air
6	12/11/17	9:46 PM	70	x			6		High mill load, wet bark	Increased air
7	12/13/17	7:29 PM	-	x			48	48	Fire in hopper	Bypass EP, remove bark
8	12/16/17	7:18 AM	44	x			6		Unknown	None
9	12/17/17	8:53 PM	55	x			6		Checking monitor	Cleaned and cal

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: \_\_\_\_\_



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# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Combination Boiler No. 1

Report Period 7/1/17 to 12/31/17

Permit Conditions 5C.08.1(B), 5C.08.2(B), 5C.08.6, & 5C.08.7

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	% Opacity or ppm	Monitor (Check One)				EP Bypass Time	Nature and Cause of Incident	Corrective Action
				OPA	TRS	O2	Duration (Minutes)			
There were no excursion events or downtime during the month of July 2017.										
1	8/2/17	2:55 PM	-	x			42	42	Washed ash screws	Remove bark from boiler, bypass EP
2	8/11/17	12:20 PM	-	x			80	80	Fire in hopper	Remove bark from boiler, bypass EP
1	9/1/17	1:36 PM	-	x			78	78	Fire in hopper	Remove bark from boiler, bypass EP
2	9/3/17	3:30 AM	-	x			90	90	Fire in hopper	Remove bark from boiler, bypass EP
3	9/9/17	2:42 AM	-	x			54	54	Fire in hopper	Remove bark from boiler, bypass EP
4	9/10/17	12:48 PM	-	x			66	66	Fire in hopper	Remove bark from boiler, bypass EP
5	9/10/17	5:24 AM	-	x			66	66	Fire in hopper	Remove bark from boiler, bypass EP
6	9/12/17	6:12 AM	45	x			6		Dirty oil gun	Removed gun
7	9/15/17	11:18 AM	-	x			180	180	Had to work on EP screw	Bypassed EP, pulled bark
8	9/29/17	8:45 AM	-	x			135		Monthly PM and off stack calibration	Returned unit to service
1	10/10/17	1:10 PM	-	x			42		Dust drift alarm	Cleaned lens and ran calibration
2	10/15/17	4:30 AM	-	x			786	786	Motor bad on EP	Pulled bark, added gas, bypassed EP, completed work
3	10/18/17	7:40 PM	-	x			45		Dirt drift fault	Cleaned lens and ran calibration
4	10/29/17	1:30 PM	-	x			60		Excessive drift noted	Cleaned lens, replaced filters, ran cal.
1	11/11/17	12:00 AM	-	x			18	18	Fire in hopper	Bypassed EP, pulled bark
2	11/14/17	8:00 PM	-	x			65	65	Fire in hopper	Removed bark from boiler, bypass EP
3	11/21/17	6:18 PM	-	x			72		Excessive dirt drift	Cleaned and cal.
4	11/22/17	8:50 AM	-	x			70		Excessive dirt drift	Cleaned and cal.
5	11/27/17	9:06 PM	-	x			96	96	Fire in hopper	Bypassed EP, pulled bark
1	12/5/17	9:48 PM	65	x			6		Starting up from outage	Returned unit to service
2	12/7/17	5:25 AM	-	x			71	71	Fire in hopper	Bypassed EP, pulled bark
3	12/7/17	1:55 PM	-	x			10		High reading on upscale cal	Ran normal cal
4	12/11/17	9:48 AM	-	x			6		Checking system	Ran normal cal
5	12/18/17	8:00 AM	-	x			186		Upscale calibration fault	Cleaned lens, ran calibration kit, calibrated

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: \_\_\_\_\_



Resolute Forest Products – Catawba Mill  
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# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Combination Boiler No. 2

Report Period 7/1/17 to 12/31/17

Permit Conditions 5C.08.1(B), 5C.08.2(B), 5C.08.6, & 5C.08.7

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	% Opacity or ppm	Monitor (Check One)				EP Bypass Time	Nature and Cause of Incident	Corrective Action
				OPA	TRS	O2	Duration (Minutes)			
1	7/21/17	1:42 AM	80	x			6		High mill load	Cut back on air
2	7/21/17	4:00 AM	75	x			6		High mill load	Cut back on air
3	7/28/17	6:00 AM	48	x			6		High header load and blowing IK's	Stopped blowing IK's
4	7/28/17	4:48 PM	59	x			12	12	Fire in hopper	Stopped burning bark, bypass EP
1	8/3/17	5:06 PM	62	x			6		Unknown	None
2	8/10/17	6:35 AM	-	x			450	450	Fire in hopper	Stopped burning bark, bypass EP
3	8/23/17	9:24 PM	43	x			6		Unknown	None
4	8/25/17	11:42 PM	41	x			6		Blowing IK	Cut air and bark
1	9/2/17	6:24 PM	-	x			66	66	Fire in hopper / EP screw broke	Pulled bark, bypassed EP
2	9/4/17	6:48 PM	41	x			6		High header load and blowing IK's	Decreased air and bark burning; stopped blowing IK's
3	9/9/17	6:00 AM	56	x			6		Unknown - suspect calibration taking place	None
4	9/10/17	1:54 AM	45	x			6		Operator error - tripped EP field	Reset EP field
5	9/11/17	8:44 PM	44	x			6		Blowing IK's	Stopped blowing IK
6	9/12/17	12:18 AM	53	x			6		Blowing IK's	Stopped blowing IK
7	9/17/17	7:48 AM	80	x			30		Shutting down boiler for grate work	Reduced bark, adding gas, completed shutdown
8	9/23/17	4:30 AM	43	x			6		High steam load, wet bark	Adj air, cut back bark
9	9/23/17	12:12 PM	71	x			6		Unknown	None
10	9/23/17	4:48 PM	41	x			6		Unknown	None
11	9/27/17	8:24 AM	-	x			90	90	Fire in hopper	Stopped burning bark, bypassed EP, washed hoppers
12	9/29/17	11:00 AM	-	x			120		Monthly PM and off stack calibration	Return system to service
1	10/2/17	4:54 PM	80	x			6		Lost inlet TR1	Had to go to remote station to restart TR1
2	10/7/17	7:18 PM	80	x			114		CB2 shut down	Completed shutdown
3	10/14/17	10:36 PM	80	x			6		Unknown	None
4	10/15/17	1:00 AM	52	x			12		Wet bark, dust collector malfunction	Started drags, increased air, cut bark
5	10/18/17	11:24 PM	54	x			6		High steam load	Cut back on bark
6	10/23/17	6:36 PM	50	x			6		Too much undergrate air	Cut back on air
7	10/23/17	7:24 PM	50	x			6		Too much undergrate air	Cut back on air
8	10/30/17	3:42 AM	80	x			6		Fields tripped	Reset fields
9	11/3/17	5:06 AM	44	x			6		Unknown	None
10	11/5/17	9:42 PM	43	x			6		Unknown	None
1	11/12/17	8:08 PM	-	x			80	80	Fire in hopper	Bypass EP, remove bark
2	11/14/17	2:41 PM	68	x			12		Fire in hopper	Remove bark
3	11/14/17	2:54 PM	-	x			226	226	Fire in hopper	Bypass EP, remove bark
4	11/15/17	10:05 PM	-	x			60	60	Fire in hopper	Bypass EP, remove bark
5	11/16/17	3:24 AM	44	x			6		Heavy steam load	Cut bark load
6	11/16/17	5:30 AM	41	x			6		Heavy steam load	Cut bark load
7	11/16/17	9:48 AM	64	x			6		Unknown	Unknown
8	11/16/17	12:00 AM	avg>11%	x					Heavy steam load and blowing IK's	Cut bark load
9	11/18/17	8:00 AM	54	x			6		Blowing IK's	Cut air and bark
10	11/19/17	8:35 AM	-	x			10		Dirt comp. out of range	Cleaned and cal
11	11/27/17	8:12 PM	65	x			6		Blowing IK's	Stopped blowing IK's
1	12/3/17	4:23 AM	-	x			72	72	Fire in hopper	Bypass EP, remove bark
2	12/3/17	5:35 AM	-	x			1440		Monitor failed calibration (zero ok, span high),	Ran calibration
3	12/7/17	3:54 AM	-	x			78	78	Fire in hopper	Bypass EP, remove bark
4	12/11/17	10:36 AM	-	x			6		Checking monitor	Ran calibration
5	12/11/17	8:47 PM	54	x			6		High mill load, wet bark	Increased air
6	12/11/17	9:46 PM	70	x			6		High mill load, wet bark	Increased air



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## CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Combination Boiler No. 2

Report Period 7/1/17 to 12/31/17

Permit Conditions 5C.08.1(B), 5C.08.2(B), 5C.08.6, & 5C.08.7

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	% Opacity or ppm	Monitor (Check One)				EP Bypass Time	Nature and Cause of Incident	Corrective Action
				OPA	TRS	O2	Duration (Minutes)			
7	12/13/17	7:29 PM	-	x			48	48	Fire in hopper	Bypass EP, remove bark
8	12/16/17	7:18 AM	44	x			6		Unknown	None
9	12/17/17	8:53 PM	55	x			6		Checking monitor	Cleaned and cal

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: \_\_\_\_\_



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## CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

### Low Volume High Concentration Gas System

Report Period 7/1/17 to 12/31/17

5.C.08.1(B), 5.C.08.2(B1), 5.C.08.7, & MACT.1(C)

for multiple effect evaporator systems exceeding 5 minutes duration, or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	LVHC System Leg	Duration (Minutes)	Nature and Cause of Incident	Corrective Action
1	7/5/2017	4:51 AM	LVHC - Fiberline	60	Valve opened on high temperature bad controller on valve would not allow valve to close	Replaced valve controller
2	7/13/2017	4:33 PM	LVHC - Fiberline	140	Bad card on rupture disk	Forced vent valve closed; ordered parts to repair card
3	7/22/2017	9:40 AM	LVHC - Fiberline	9	Water in control panel	Called maintenance, removed water
4	7/22/2017	9:57 AM	LVHC - Fiberline	48	Water in control panel	Called maintenance, removed water
5	7/22/2017	10:46 AM	LVHC - Fiberline	56	Water in control panel	Called maintenance, removed water
6	7/28/2017	9:57 AM	LVHC - Fiberline	20	Water in control panel	Called maintenance, removed water
There were no excursion events or downtime during the month of August 2017.						
1	9/23/2017	5:18 PM	LVHC	6	Switching gas to No. 2 CB	Gas switched boilers
There were no excursion events or downtime during the month of October 2017.						
1	11/15/2017	2:17 AM	LVHC	20	Turbine tripped swinging steam header	Stabilize header
2	11/16/2017	6:51 AM	LVHC	14	SOG burner tripped on interlock	Gas valve did not close, manually closed valve and reintroduced SOG to boiler
3	11/19/2017	10:27 PM	LVHC	50	LVHC tripped, vent valve failed to open, blew rupture disc	Replaced rupture disc
4	11/20/2017	2:49 AM	LVHC - evap3	29	LVHC tripped, vent valve failed to open, blew rupture disc	Shutdown evap 3, replaced rupture disc
5	11/20/2017	3:29 AM	LVHC - evap3	13	LVHC tripped, vent valve failed to open, blew rupture disc	Shutdown evap 3, replaced rupture disc
1	12/5/2017	12:40 AM	LVHC	8	Lost LVHC igniter	Relight igniter
2	12/5/2017	5:23 AM	LVHC	7	Lost LVHC igniter	Relight igniter
3	12/6/2017	9:13 AM	LVHC - evap1	10	Switching gas to No. 1 CB	Evap vent would not close, manually closed vent valve
4	12/9/2017	3:02 AM	LVHC	16	Fuel trip on #1 CB and main gas valve on #2 CB would not reset	Reset #1 CB

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: \_\_\_\_\_





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## CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

### High Volume Low Concentration Gas System

ID 2605, ID 3705

SIP, NSPS

Report Period 7/1/17 to 12/31/17

Permit Conditions 5.C.08.1(B), 5.C.08.2(B1), 5.C.08.7, & MACT.1(C)

This report is for indicated emissions from the fiberline, pulp washing systems, oxygen delignification, and screening/knotting systems exceeding 5 minutes duration, or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	HVLC System Leg	Duration (Minutes)	Nature and Cause of Incident	Corrective Action
1	7/19/2017	8:14 AM	PH: HVLC	176	Flushing out lines	Completed flush out, returned gases
There were no excursion events or downtime during the month of August 2017.						
There were no excursion events or downtime during the month of September 2017.						
1	10/17/2017	12:18 AM	PH: HVLC	42	#2 HVLC fan drive belts broke	Replaced belts
1	11/23/2017	1:51 PM	PH: HVLC	19	Low flow from HVLC collection	Worked on auto valve that was stuck
2	11/23/2017	7:27 PM	PH: HVLC	50	Belt broke on #1 HVLC fan	Replaced belts
1	12/9/2017	3:02 AM	PH: HVLC	22	Fuel trip on #1 CB and main gas valve on #2 CB would not reset	Reset #1 CB

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: \_\_\_\_\_